File

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State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-729 Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1996 model-year General Motors Corporation exhaust emission control systems are certified as described below for medium-duty vehicles:

Fuel Type: Gasoline

Engine Family: TGM7.4J8G1EK <u>Displacement</u>: 7.4 Liters (454 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Exhaust Gas Recirculation
Dual Three Way Catalytic Converters
Dual Heated Oxygen Sensors (Two)
Sequential Multiport Fuel Injection
Secondary Air Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The certification exhaust emission standards for this engine family in grams per mile are:

Test Weight	Miles	Non-Methane	Carbon	Nitrogen
(lbs.)		<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>
5751-8500	50,000	0.39	5.0	1.1
	120,000	0.56	7.3	1.53

The certification exhaust emission values for this engine family in grams per mile are:

Test Weight (lbs.)	Miles	Non-Methane <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>
5751-8500	50,000	0.29	3.2	0.6
	120,000	0.30	3.4	0.57

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the 50,000-mile evaporative emission standards applicable to 1980 through 1994 model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles", and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That, based on the evaporative emission phase-in compliance schedule submitted by the vehicle manufacturer, the listed vehicle models shall not be subject to the running loss and useful life standards set forth in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 15

day of August 1995.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES

Example, Pattern A: CC10703+E62 Example, Pattern B: 1UM05

Digit 1 = Marketing Division

Pattern B Pattern A 1 = Chevrolet C = Chevrolet 2 = Pontiac T = GMC3 = Oldsmobile H = Oldsmobile

G = Isuzu

Note: Digit 1 is not used for Pattern A models on engine family pages or California Supplemental Data Sheets.

Digit 2 = Chassis Type (all)

= Conventional 4x2 Front Wheel Drive C. S. M = Conventional 4x2 Rear Wheel Drive = Forward Control 4x2 Rear Wheel Drive

K. T. L = Conventional 4x4 Four Wheel Drive, All Wheel Drive

Digit 3 = Series/GVWR Pattern B Pattern A Letter code designates trim level $\overline{1} = 11.15,1500/3500-7300$ rather than series/GVWR. 2 = 21.25,2500/6400-86003 = 31.35.3500/7100-14500

Digits 4 & 5

Pattern B Pattern A = Dimensional Grouping 05 = Cargo (APV)05 = Blazer, Jimmy, Bravada 06 = S/T Short Box 07 = C/K Short Box 06 = Passenger (Lumina APV, Trans Sport, Silhouette) 08 = S/T Long Box & Cab-Chassis 09 = C/K Long Box, Suburban, 10 = M/L Long Body 14 = G Short Wheelbase 17 = G Long Wheelbase

Digits 6 & 7 = Body/Cab Codes (Pattern A Only) 03 = Conventional Cab, Cab-Chassis

05 = Cargo Van

06 = Passenger Van, 4 Door Special Purpose Vehicle

16 = 2 Door Special Purpose Vehicle 43 = Crew Cab

53 = Extended Cab

Pickup Body Codes (Optional, Used with Pattern A Only)

+E62 = Stepside, Fenderside +E63 = Fleetside Wideside

+ZW9 = Cab-Chassis

ISSUED: ML-TP096 REVISED:

17-TGM7.4J8G1EK-1

ALL ENGINEXH STD: EVAP STD: VEH CLASS	E CODES IN EN CA Tier-1 <u>X</u> 50K <u>X</u> U G(ES): PC	GINE FAMILY:TLEV SEFUL LIFE WILDT1 LD	CA <u>X</u> LEV TH R/L ; T2 MD\	ULEV ZEV IN-USE EXH S /1 MDV2	V ; STD: FU	50S U.S. E LL /	AB965 EPA Tier-1 <u>X</u> ALTERNATIVE <u>X</u>
FUEL TYPE SERVICE / R/L TEST	ACCUM: STD AM		INE <u>X</u> ; R ADP <u>X</u> ; ; V8_X	EMISS TEST NMOG TES HYBRID TYPE DISPLACEM 4 R	T PROC: : <u>NA</u> ENT: <u>7</u> ATED HP:	<u>NA</u> API 7.4_LITER 290	EQUIV U CYCLE: NA_ S/_454_CU. IN. @4200RPM
EXHAUST		ROL SYSTEM: _		FWD RW (2), 2TWC, SFI,		4WD-FT	4WD-PT
ENG	VEH MODELS (SEE PAGE 1)	TRANS. (M5,A4	EQUIV. TEST WEIGHT	IGNITION (ECM/PCM) PART NO.	_	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART_NO.
51	C20906 C30903+E63 C30943+E63 C30953+E63 C20903+E63 C20753+E63 C20953+E63	A4	7000 7000 7500 7500 8000 7000 8000 7000	16177425/BE 16187577PG- 16187624-EN 16187808, 16187809, 16187802-TF	OPER IG	17096200	25160620
51A			,	16227535-EI 16232915PG 16227587(3 16227588(4	-OPER .42/3.73),)-TRANS	
51B				16235505PH 16227598(3 16227599(4	.42/3.73		
C2500 SI C2500 SI C3500 P	_INE_NAME JBURBAN 2WD JBURBAN 2WD ICKUP 2WD IERRA 2WD	55 80 55	<u>NE CODE</u> 066 056 021 016	16237015PJ 16227598(3 16227599(4	.42/3.73	3), 5)-TRANS	
ISSUED:	ML-TP096	REV I	SED: ML-T	R012, ML-TR057.	ML-TR08	30	

	MFR: GENER	RAL MOTORS CO	RP. ENGINE FA	MILY: TGM7.4J	8G1EK EVAP. FAMIL	LY: <u>TGM1098A</u>	YMBA
•	LL ENGINE	CODES IN ENGIN	IE FAMILY:	CA <u>X</u>	49S 50S	AB965	
•	EXH STD:	CA Tier-1_X_	TLEV LEV_	ULEV	_ ZEV; U.S	s. EPA Tier-1 <u>X</u>	<u></u>
	EVAP STD:	50K X USE	FUL LIFE WITH R/	L; IN-US	E EXH STD: FULL_	_ ALTERNATI	VE <u>X</u>
	VEH CLASS	FS) PC LE	DT1 LDT2	MDV1 MI	DV2 MDV3_X_ N	MDV4 MDV	′5
			TI-CLASS ENGINE				
					TEST FUEL(S): IND	O_ PHASE 2	<u> </u>
	050,405 40	CLIM: STD AM	A MERADA	x · NM	OG TEST PROC: N	A EQUIV	
	SERVICE AC	COIVI. STU AIVI.	DT SOUBCE :	HYBRID TY	PE: <u>NA</u> APU	CYCLE: NA	
	R/L IESI PR	(OC: <u>NA</u>	P1 300R0E,	יי פואפוון	CEMENT: 7.4 LITE	ERS / 454 CU.	IN.
	ENGINE CO	NEIGURATION:	14 V6 V6_A		RATED HP: 290 (ത 4200 RPM	
	ENGINE LOC	CATION: FRON	F <u>X</u> DRIV	E: FVVD	RWDX 4WD-FT_	AIR	
				EGR, 2	:HO2S(2), 2TWC, SFI, .	<u> </u>	
	RLHP/DPA V	ALUES: <u>SECTIO</u>			LONUTION!	ECP.	CATALYTIC
	ENG	VEH MODELS	TRANS. (M5,A4	EQUIV. TEST	IGNITION (ECM/PCM)	SYSTEM	
	(LOC)	(SEE PAGE 1)	<u>ETC.)</u>	WEIGHT	PART NO.	PART NO.	PART NO.
			A4		16177425/BBAH	17096200	25160620
	51	K20906 K30903+E63	/ -1	7500	16187577PB-OPER		
· .		14000 40 x 500		8000 7500	16187624-ENG 16187832,		
		K30943+E63		8500	16187833,		
		K30953+E63		8000	16187837, 16187838-TRANS		
		K20903+E63 K20753+E63		7000	(0) (0) (0) (1) (A) (0)		
		K20953+E63		7500	40007505 ENC		
	51A				16227535-ENG 16232915PG-OPER		
					16227587(3.42/3.73),		
					16227588(4.10/4.56)-	IKANS	
	51B				16235505PH-OPER		
					16227598(3.42/3.73), 16227599(4.10/4.56)-		
					10227 000 (1.107 1.00)		
	51C				16237015PH-OPER		
	51D				16232401-ENG		
	_		A . D. W. T. C. C. T.				
		E NAME URBAN 4WD	CARLINE CODE 55081				
	K2500 SUB	URBAN 4WD	80071				
	K3500 PICK K3500 SIER		55036 80026				
	~ K3300 31ER	11/1 44AD	00020				TD445

SUED: ML-TP096 REVISED: ML-TR012, ML-TR057, ML-TR080, ML-TR083, ML-TR012A, ML-TR115

SINGLE CERT STD FOR MULTIFUEL TYPE(S): DEDICATED_ SERVICE ACCUM: STD AMA_ R/L TEST PROC: NA_ ENGINE CONFIGURATION: I4	E FAMILY: TLEV TUL LIFE WITH T1 LDT2 -CLASS ENGIN _ MFR PT SOURCE ALVES/CYLINDE C SYSTEM: _EC	CA_X LEV I R/L ; 2 MDV IE FAMILY: IE_X ; ADP_X ; _ ; V8_X DRIVE: GR, 2HO2S(49S ULEV ZEV IN-USE EXH STD: 1 MDV2 MC NA_ EMISS TEST FUEL(NMOG TEST PRO HYBRID TYPE: _N DISPLACEMENT: 4 RATED FWD RWD_X	50S : U.S. EPA FULL ALTOV3_X MDV4 (S): INDO OC: NA APU (APU (APU (APU)) 	AB965A Tier-1 _X_ FERNATIVE_X_ MDV5 PHASE 2_X_ EQUIV CYCLE: _NA_ 454_CU. IN4200 RPM
ENG CODE VEH MODELS (LOC) (SEE PAGE 1)	TRANS. (M5.A4 ETC.)	EQUIV. TEST <u>WEIGHT</u>	IGNITION (ECM/PCM) PART NO	EGR SYSTEM <u>PART NO.</u>	CATALYTIC CONVERTER PART NO.
52 C20906 C30903+E63 C30943+E63 C30953+E63 C20903+E63 C20753+E63 C20953+E63	A4	7500 7000 8000 7500 8000 7500 8000 7000	16177425/BBAH 16187577PB-OPER 16187624-ENG 16187808. 16187809. 16187802-TRANS		25160620
52A		•	16227535-ENG 16232915PG-OPER 16227587(3.42/3 16227588(4.10/4	.73),	
52B			16235505PH-0PER 16227598(3.42/3 16227599(4.10/4	1.73),	
CARLINE NAME C2500 SUBURBAN 2WD C2500 SUBURBAN 2WD C3500 PICKUP 2WD C3500 SIERRA 2WD	<u>CARLINE</u> 5506 8005 5502 8001	56 56 21	16237015PH-OPER 16227598(3.42/3 16227599(4.10/4	3.73).	
ISSUED: ML-TP096	REVISE	ED: ML-TR	012, ML-TR057, ML-	TR080	

MFR: GEI	NERAL MOTORS CO	RP. ENGINE	FAMILY: <u>TGM7</u>	<u>.4J8G1EK</u> EVAP. FAN	/ILY: <u>TGM1098</u>	<u>AYMBA</u>
ALL ENGI	NE CODES IN ENGIN	IE FAMILY:	CA <u>X</u>	49S 50S_	AB965	·
₩£XH STD:	CA Tier-1_X_	TLEV LE	V ULEV	ZEV; U	.S. EPA Tier-1	<u> </u>
EVAP STO	D: 50K <u>X</u> USE	FUL LIFE WITH	R/L; IN-	USE EXH STD: FULL	ALTERNAT	IVE_X_
VEH CLAS	SS(ES): PC LC	T1 LDT2_	MDV1	MDV2 MDV3_X	MDV4 MD	V5
SINGLE C	ERT STD FOR MULT	TI-CLASS ENGIN	NE FAMILY: 1	<u>NA</u>		
FUEL TYF	PE(S): DEDICATED	X GASOLINE	<u>X</u> ; EMIS	SS TEST FUEL(S): IN	IDO PHASE	2 <u>X</u>
SERVICE	ACCUM: STD AM	A MFR A	DP <u>X</u> ; N	IMOG TEST PROC:	NA EQUIV	/
R/L TEST	PROC: NA	PT SOURCE	; HYBRID	TYPE: NA AP	U CYCLE: NA	_
ENGINE C	CONFIGURATION:	14 V6 V8_	X DISP	LACEMENT: 7.4 LI	TERS / <u>454</u> CU	J. I N .
				RATED HP: _290_		
ENGINE L	OCATION: FRONT	r <u>x</u> DR	IVE: FWD_	_ RWD <u>X</u> 4WD-FT_	_ 4WD-PT <u>X</u>	
EXHAUST	EMISSION CONTRO	OL SYSTEM:	EGR	R, 2HO2S(2), 2TWC, SFI	, AIR	
RLHP/DP/	A VALUES: SECTIO	N 08.13.02.00				
ENG		TRANS.	EQUIV.	IGNITION		CATALYTIC
	VEH MODELS	• •	TEST <u>WEIGHT</u>	(ECM/PCM) PART NO	SYSTEM PART NO.	
(LOC)	(SEE PAGE 1)	<u>E1C.)</u>	VVEIGHT			
52	K20906	A4	7500 7500			25160620
	K30903+E63		8000	16187624-ENG		
	K30943+E63		0500	16187832,		
	K30953+E63		8500 8000			
	K20903+E63		7000	16187838-TRANS		
	K20753+E63 K20953+E63		7500			
52A	1/20955, 200		, 000	16227535-ENG		
				16232915PG-OPER 16227587(3.42/3.73)		
				16227588(4.10/4.56)		
505				16235505PH-OPER		
52B				16237598(3.42/3.73)		
				16227599(4.10/4.56		
52C				16237015PJ-OPER		
52D				16232401-ENG		
CARL	INE NAME	CARLINE CO	<u>DE</u>			
. —	BURBAN 4WD	55081 80071				
	IBURBAN 4WD CKUP 4WD	55036				
K3500 SI	ERRA 4WD	80026				

SUED: ML-TP096 REVISED: ML-TR012, ML-TR057, ML-TR080, ML-TR083, ML-TR012A, ML-TR115

is.	ALL ENGINE EXH STD: EVAP STD: VEH CLASS(SINGLE CEF FUEL TYPE(CODES IN ENGIN CA Tier-1_X 50K_X USEI (ES): PC LD RT STD FOR MULT (S): DEDICATED	E FAMILY: TLEVLE FUL LIFE WITH T1LDT2 I-CLASS ENGINE X GASOLINE	CA_X_ V ULEV R/L; IN- MDV1 IE FAMILY: _ :X_; EMIS	7.4J8G1EK EVAP. FA 49S ; 50S_ ' ZEV ; U USE EXH STD: FULL MDV2 MDV3_X_ NA SS TEST FUEL(S): II	AB965_ J.S. EPA Tier-1 ALTERNAT MDV4 MD NDO PHASE	 X IVE_X V5 2 <u>X</u> _
					TYPE: <u>NA.</u> AF		
	ENGINE CO				PLACEMENT: 7.4 L		
	EXHAUST E	CATION: FRONT MISSION CONTRO	X DR	IVE: FWD_	RATED HP: <u>290</u> RWD <u>X</u> 4WD-FT_ R, 2HO2S(2), 2TWC, SF	4WD-PT	
	ENG	/ALUES: <u>SECTIO</u> I	TRANS	EQUIV.	IGNITION	EGR	CATALYTIC
		VEH MODELS (SEE PAGE 1)	(M5,A4 ETC.)	TEST <u>WEIGHT</u>	(ECM/PCM) PART NO.	SYSTEM PART NO.	
		G31405 G31406 G31705 G31706	A4	7500 8000 7500 8000	16177425/BBAH	1	25160620
	53A,54A, 53N,54N				16227536-ENG 16232915PG-OPEF 16227587(3.42/3.73 16227588(4.10/4.56	3),	
	53B,54B, 53P,54P				16235505PH-OPER 16227598(3.42/3.73 16227599(4.10/4.56	3),	
	53C,54C, 53Q,54Q				16237015PJ-OPER		
	53D,54D, 53R,54R				16232402-ENG		
•,	G3500 CHE G3500 CHE	INE NAME V EXPRESS 2WD V VAN 2WD ANA 2WD (PASS.) DURA 2WD	550 55 80	IE CODE 052 056 046 042			

SSUED: ML-TP096 REVISED: ML-TR012, ML-TR057, ML-TR080, ML-TR083, ML-TR115

EMISSION DATA RATIOS TO BE USED FOR ASSEMBLY LINE TESTING

	19425912 (Confiq 005)	19425912 (Config 006)	19425913 (Config 005)	19425913 (Config 006)
NMHC* (G/MI)	0.0368	0.0389	0.0385	0.0432
NMOG (G/MI)	0.0377	0.0396	0.0393	0.0439
HCHO (G/MI)	0.0003	0.0003	0.0002	0.0004
NMOG: NMHC	1.0245	1.0180	1.0208	1.0162
HCHO: NMHC	0.0082	0.0077	0.0052	0.0093

^{*} NMHC includes methane response factor.

Average NMOG:NMHC = 1.020

Average HCHO:NMHC = 0.008

Ratio established using Phase 2 emission certification fuel.

ISSUED: ML-TP066 REVISED: ML-TP187